

REMARKS

Claims 2, 3 and 5 to 19 are all the claims pending in the application.

Claims 2, 3 and 6-18 have been rejected under 35 U.S.C. § 102(e) as anticipated by the U.S. Patent 6,479,141 to Sanbayashi et al.

Applicants submit that Sanbayashi et al do not disclose the subject matter of claims 2 and claims 6 and 6 to 18 which depend, either directly or indirectly, from claim 2.

As set forth in claim 2, the present invention is directed to a photocatalytic powder comprising titanium dioxide fine particles comprising an anionically active substance, wherein the fine particles have an electrokinetic potential of from about -100 mV to -10 mV in an aqueous environment at pH 5, and wherein the crystal form of the titanium dioxide fine particles is brookite.

In essence, the Examiner states Sanbayashi et al disclose all of the features of the present claims, except that Sanbayashi et al are silent with respect to the electrokinetic potential value of their coating composition. The Examiner argues that the electrokinetic potential value of the Sanbayashi et al coating composition is an inherent value, and that the Sanbayashi et al coating composition would be expected to have the same electrokinetic potential value as the present claims because Sanbayashi et al disclose the same composition as the present claims. The Examiner apparently believes that the coating composition of Sanbayashi et al is the same as the present because Sanbayashi et al disclose the use of phosphorus-containing compounds as a binder.

As set forth in the Response Under 37 C.F.R. § 1.111, filed on June 6, 2006, applicants disagree with the Examiner's analysis.

Sanbayashi et al disclose, at col. 6 lines 3-16, that an arbitrary component can be incorporated into their composition. Sanbayashi et al state that the arbitrary component can be a surfactant, and that examples of the surfactants include anionic surfactants. In addition, Sanbayashi et al disclose, at col. 5, lines 21-36, that a binder can be employed, and that the binder can be a phosphorous-containing compound, including phosphoric acid, polyphosphoric acid and aluminum phosphate. The present specification discloses at page 6 that various polyphosphoric acids, such as tripolyphosphoric acid and tetrapolyphosphoric acid, can be used as the anionically active substance.

With respect to the electrokinetic potential, however, Sanbayashi et al do not disclose any information concerning the electrokinetic potential, or the dependency of the electrokinetic potential on the amounts of specific components.

Example 1 and Comparative Examples 4 and 5 of the present application establish that the electrokinetic potential depends on the amount of anionically active substance that is present in the composition. Thus, Examples 1 and Comparative Examples 4 and 5 each contained the same components, but contained the sodium hexametaphosphate (the anionically active substance) in different amounts. Only Example 1, however, had the claimed electrokinetic potential.

Accordingly, applicants submit that it is clear that the electrokinetic potential of a composition depends on the specific components and amounts that are contained in the

composition, and that the disclosures of anionic surfactants or phosphorus-containing compounds in Sanbayashi et al do not inherently satisfy the recitations of the present claims.

In the present Office Action, the Examiner responds by stating that claim 2 does not recite a specific amount of the anionically active substance.

Although the Examiner is correct in noting that claim 2 does not recite a specific amount of the anionically active substance, claim 2 requires a specific electrokinetic potential, which in turn requires specific amounts of the anionically active substance to be present in the powder. This can be clearly seen by comparing Example 1 and Comparative Examples 4 and 5, as set forth above.

Applicants submit that the Examiner is wrong to require claim 2 to recite a specific amount of the anionically active substance. The fact that claim 2 does not recite a specific amount of the anionically active substance is irrelevant to the fact that Sanbayashi et al fail to disclose (expressly or inherently) a powder comprising fine particles having an electrokinetic potential of from about -100 mV to -10 mV.

Further, with respect to the Examiner's general argument, that Sanbayashi et al inherently disclose the claimed electrokinetic potential values, applicants point out that "anticipation by inherent disclosure is appropriate only when the reference discloses prior art that must necessarily include the unstated limitation." See, *Atofina v. Great Lakes Chem. Corp.*, 441 F.3d 991, 1000 (Fed. Cir. 2006). Here, Comparative Examples 4 and 5 from the present specification are clear evidence that powders may comprise the same fine particles which may comprise the

same anionically active substance as recited in claim 2, but the fine particles do *not* necessarily possess the claimed electrokinetic potential of from about -100 mV to -10 mV.

In addition, applicants enclose a copy of an executed Declaration Under 37 C.F.R. § 1.132 in which a coating composition was prepared by the method of Example 1 of Sanbayashi et al, and the electrokinetic potential was then evaluated in the same manner as set forth in the present specification. The measured result was +37.8 mV, which is not within the range of -100 mV to -10 mV of claim 2. This disproves the Examiner's position that the coating compositions of Sanbayashi et al inherently possess an electrokinetic potential falling within the claimed range.

In view of the above, applicants submit that Sanbayashi et al do not anticipate claim 2 and claims 3 and 6-18 that depend from claim 2. Accordingly, applicants request withdrawal of this rejection.

Claim 5 has been rejected under 35 U.S.C. § 103(a) as obvious over Sanbayashi et al.

In addition, claim 19 has been rejected under 35 U.S.C. § 103(a) as obvious over Sanbayashi et al in view of U.S. Patent 5,965,479 to Suzuki et al.

The Sanbayashi et al patent is owned by Showa Denko, K.K., which is also the owner of the present application. The Sanbayashi et al patent issued on November 12, 2002, and thus was copending with applicants' parent application 09/839,418 filed on April 23, 2001. The present application, therefore, has an effective filing date at least as early as April 23, 2001. Moreover, the present application and the parent application claim benefit of Provisional Application 60/270,156, filed February 22, 2001. This provisional application supports claims 5 and 19 of

the present application. As a result, claims 5 and 19 are entitled to an effective date at least as early as February 22, 2001. Applicants note that the cited U.S. Patent 6,479,141 to Sanbayashi et al has a family member, WO 01/23483, that was published on April 5, 2001, which is later than the above-noted date of February 22, 2001 of the present application.

In the Response Under 37 C.F.R. § 1.111 filed June 6, 2006, applicants included a statement to establish common ownership of the subject matter recited in claims 5 and 19 and the subject matter disclosed in Sanbayashi et al, at the time the present invention was made, in order to preclude Sanbayashi et al from being used as a reference under 35 U.S.C. § 103(a) against claims 5 and 19.

The Examiner does not address applicants' traversal of the rejections of claims 5 and 19 in the present Office Action. Therefore, applicants' attorney, Mr. Raul Tamayo, contacted the Examiner in October, 2006. The Examiner basically agreed that she may have overlooked applicants' position that Sanbayashi et al do not constitute prior art under 35 U.S.C. § 103(a). The Examiner stated that applicants should raise this argument again when responding to the final Office Action and that she would act accordingly.

Accordingly, applicants again submit that Sanbayashi et al cannot be used as a reference under 35 U.S.C. § 103(a) against claims 5 and 19 in view of the statement of common ownership.

Accordingly, applicants request withdrawal of these rejections.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the

AMENDMENT UNDER 37 C.F.R. § 1.116  
Application No. 10/725,327

Attorney Docket No. Q78609

Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.


Respectfully submitted,

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Date: February 21, 2007